(Continued from page 1)

resulted in the decision, supported by GA EPD, to remove and dispose off-site approximately 45,000 pounds of lead-contaminated soil. GA EPD requested that the base prepare and implement a Corrective Action Plan (CAP) for accomplishing the needed remediation.

The CAP was approved by GA EPD in October 2001. Upon completing the actions defined in the CAP, the base prepared a CAP Completion Report which was tentatively approved by GA EPD in November 2001, pending the submittal of a Class 3 permit modification request by the base and the associated public comment period and public meeting.

The public notice concerning the permit modification request was provided to the local print media as well as to specified state and local government offices and to addressees on the GA EPD mailing list.

Glossary

CAP– Corrective Action Plan
GA EPD– Georgia Environmental Protection Division
JP-4– jet fuel
ppb– parts per billion
ppm– parts per million
RAB- Restoration Advisory Board
RCRA– Resource Conservation and Recovery Act
RFI– RCRA Facility Investigation
SWMU– Solid Waste Management Unit

CAP Implementation for the SWMU 63 Test Firing Range Site

Visit us on the web at
www.em.robins.af.mil

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Mr. Steven Coyle, Robins AFB Installation Co-Chair	**Dr. Dan Callahan,** **Warner Robins** Community Member	**Mr. Mike Maffeo,** **Macon** Community Member
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Fact Sheet

Robins Air Force Base Restoration Advisory Board (RAB)

A publication of Robins AFB Volume 5, Issue 1, March 2002

The Robins AFB RAB

Recognizing the importance of public involvement in environmental restoration, Robins Air Force Base (AFB) established the RAB in 1994. The mission of the RAB is to encourage community participation in the Air Force Environmental Restoration Program (ERP) cleanup process and allow community members and other stakeholders to have meaningful dialog with base officials. The RAB includes members from the community, regulatory agencies, and the base, and holds four public forums per year. The RAB serves to advise Robins AFB management and disseminate information to the public.

March RAB Meeting Held

The spring meeting of the RAB was held on March 14, 2002, at the Hampton Inn in Warner Robins, Georgia. The theme of this meeting was "Site Investigation and Closure." Briefings were presented on several topics, including the SWMU 63 Test Firing Range CAP Closure and Completion Report (public meeting), remedial action at the JP-4 spill site, a summary of activities at the Horse Pasture Site, innovative well technologies, and restoration program update.

The RAB *Fact Sheet* provides a summary of the information and topics discussed in this meeting.
The next meeting will be held on June 13, 2002.

A **glossary** of key abbreviations used in this Fact Sheet appears on page 4.

A reminder about the June meeting...

The June meeting is the annual RAB tour meeting. Attendees are invited to dress casually to accommodate the warm weather conditions.

Public Meeting Held for Permit Modification Request

Robins Air Force Base has completed corrective actions as directed by GA EPD at SWMU 63, Test Firing Range. As a part of the regulatory process, the base has submitted a Class 3 Permit Modification Request to GA EPD requesting "No Further Action" at SWMU 63. The public meeting related to this request was held prior to beginning the March 14, 2002 RAB meeting.

The Permit Modification Process for Corrective Action

Regulations require that the holder of a Hazardous Waste Facility Permit complete a designated process when a permit modification is warranted for completion of an approved final remedy. The process involves submittal of a permit modification request to GA EPD, notification to designated public entities and individuals of the request in writing , establishment of a public comment period with notification in the print media, and the holding of a public meeting in order to brief the public and receive any further comments. Upon completion of the required steps, GA EPD considers all comments received and determines whether the requested modification is granted.

At SWMU 63, Robins AFB has completed all required corrective actions stipulated in regulations and in the permit. As a consequence, the base has requested a modification to the permit to change the status of SWMU 63 to "No Further Action."

Steven Coyle, Installation Co-Chair, stated that in addition to holding the public meeting, there is a public comment period ending on 17 April to allow the community to have input. He also stated that supporting documents were available at the Nola Brantley Memorial Library in Warner Robins. Detailed information related to the corrective actions at SWMU 63 was presented at the public meeting.

During site investigations, lead contamination was identified in surface and subsurface soils at the SWMU 63 site from lead fragments from bullets. An RFI was conducted at the site during 1998 and 1999 and

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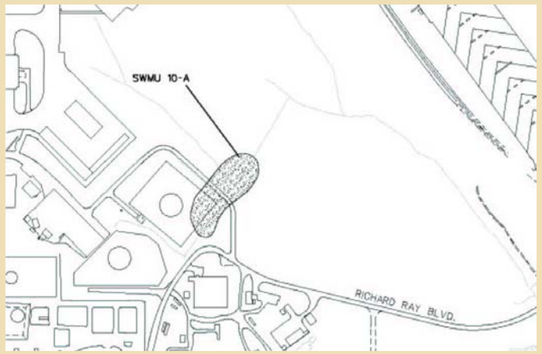
JP-4 Spill Site Progress Reported

An update of remedial activities underway at the JP-4 Spill Site was presented at the March RAB meeting. In the early 1970s, an estimated 60,000 gallons of JP-4 fuel overflowed from a tank in this area; at the time only a portion of the spilled fuel could be recovered.

In 1997, the base developed a CAP for remedial actions at this site. The CAP criteria included



Attendees were briefed on progress of remedial actions at the JP-4 Spill Site (SWMU 10-A).

achieving a 5 ppb benzene limit in the area soils. The remedial technologies selected were free product recovery from a series of recovery wells using absorbent wicks and bioventing for residual fuel biodegradation.

The remedial actions taken have proven quite successful. All free product from this site was recovered by 1999, and bioventing has enabled the base to achieve the 5 ppb remedial objective in area soils. At present the bioventing system continues in operation pending regulatory response to the progress reports submitted to GA EPD.

Horse Pasture Site RFI Underway

Robins AFB is conducting a Phase II RFI at the Horse Pasture Site. Located in the southeastern portion of the base, the Horse Pasture Site consists of three SWMUs and sitewide groundwater. The site was used as a storage and disposal area from the mid-1950s until the early 1970s.

Investigative activities at the three SWMUs have included installation and sampling of test pits, installation of boreholes for determining vertical and horizontal delineation of contamination, and installation and sampling of groundwater monitoring wells. Innovative and cost-saving monitoring well installations have been made in recent months (see article on page 3).

Preliminary findings have indicated areas of contamination at the Horse Pasture, generally in subsurface soils and groundwater covered by several feet of uncontaminated soil. The field work associated with the Phase II RFI is scheduled for completion in April 2002 with the associated report to be completed during the summer of 2002.

With the Horse Pasture Site in the background, engineers review progress of a test pit installed as part of the Phase II RFI.

Innovative Well Technology Saves Money, Time for Base Site Investigations

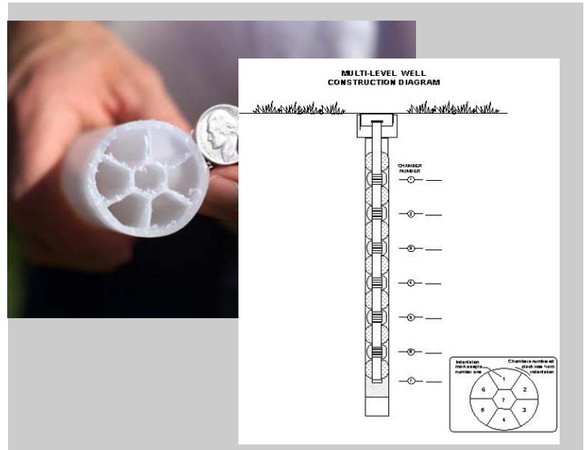
Two innovative technologies associated with groundwater monitoring wells have been incorporated in recent well installations at Robins AFB. The first is the Rotosonic™ drilling technique, a technology that has been applied in well installations at the Horse Pasture (see article on page 2). In Rotosonic™ drilling, a vibrating cutting head advances into the subsurface and enables a continuous coring to be withdrawn, thereby giving an accurate picture of the geology of the well site.

The second innovative well technology is the multi-level well, first used at Robins at the Horse Pasture site. Background related to conventional well installations was provided and attendees were briefed on the basic function of single-level wells– that they monitor conditions at a single depth. However, at a site with multiple aquifers or multiple depths of interest, using conventional wells may mean that one has to install several adjacent wells. With an average drilling cost of $50 to $60 per foot, drilling multiple wells becomes an expensive activity.

Multi-level wells utilize a seven-lobed well tube that is installed into a single bore hole. Once the geologist reviews the site geology as determined by review of the single coring removed by Rotosonic™ or similar drill

Installation of a multi-level well as part of the Phase II RFI activities at the Horse Pasture site (l); a sample of multi-level well tubing with channel access holes and screened section (r).

technique, the desired depths for groundwater sampling can be determined. When these depths are determined, as many of the lobes as required are prepared by drilling access holes into the side of the tube at the desired depth positions. Appropriate screening is then added at the access hole locations. Upon completion of prepara-



Multi-level groundwater wells can provide up to seven discrete monitoring zones in one bore hole, saving time and money. Photo at left shows size of seven-lobed well tube.

tion, the multi-level well tube is lowered into the well and the well installation is completed. Extraction of groundwater from well lobes is accomplished by either pumping or bailing.

Multi-level wells can be installed for a cost of approximately $100 per foot and often represent a saving of more than 75 percent over the cost of installing multiple individual wells.

At the Horse Pasture site, six multi-level wells were installed as part of the Phase II RFI efforts. These wells have been developed and are currently part of the sampling network for the site.